

*Fig. 1*

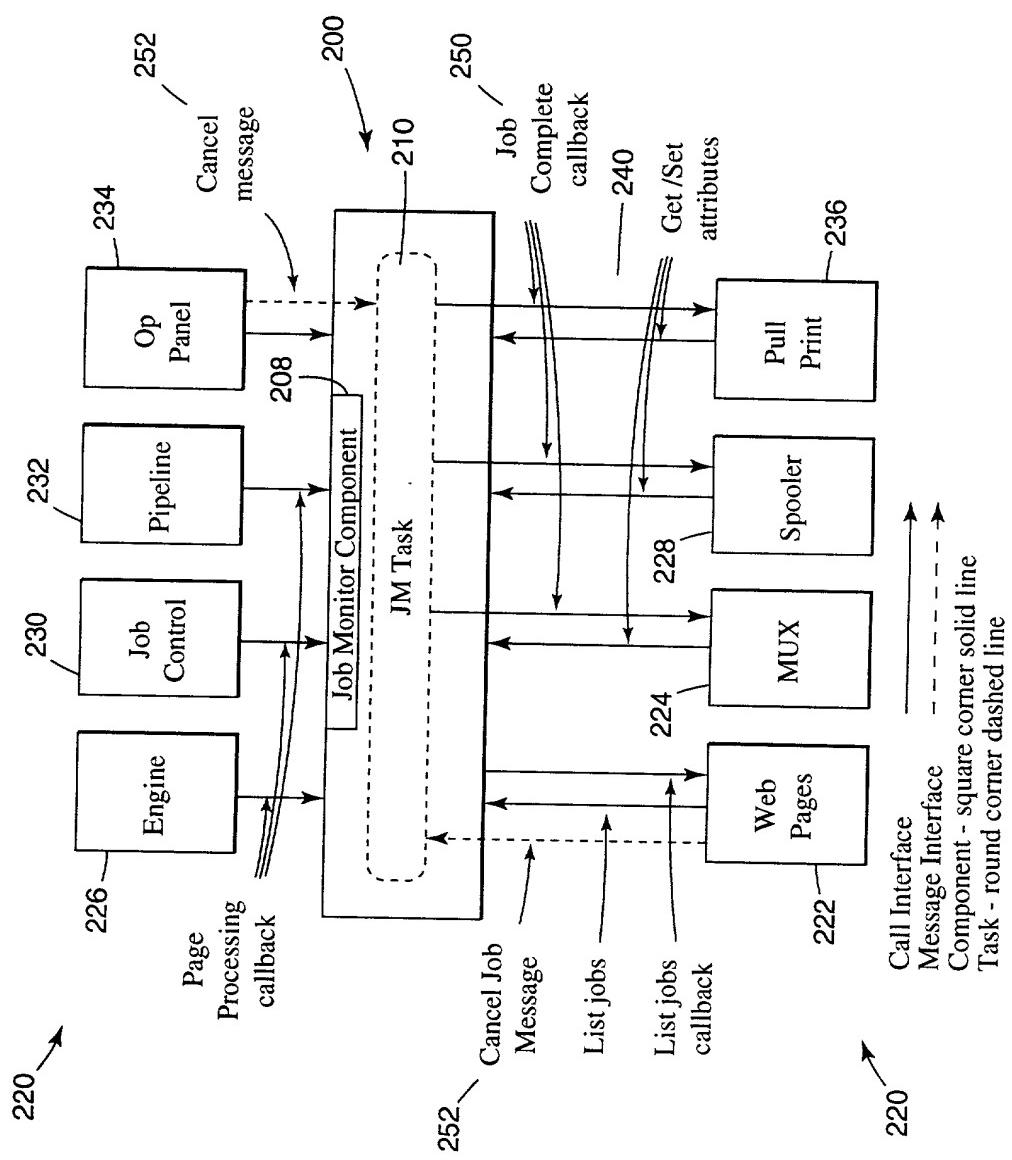
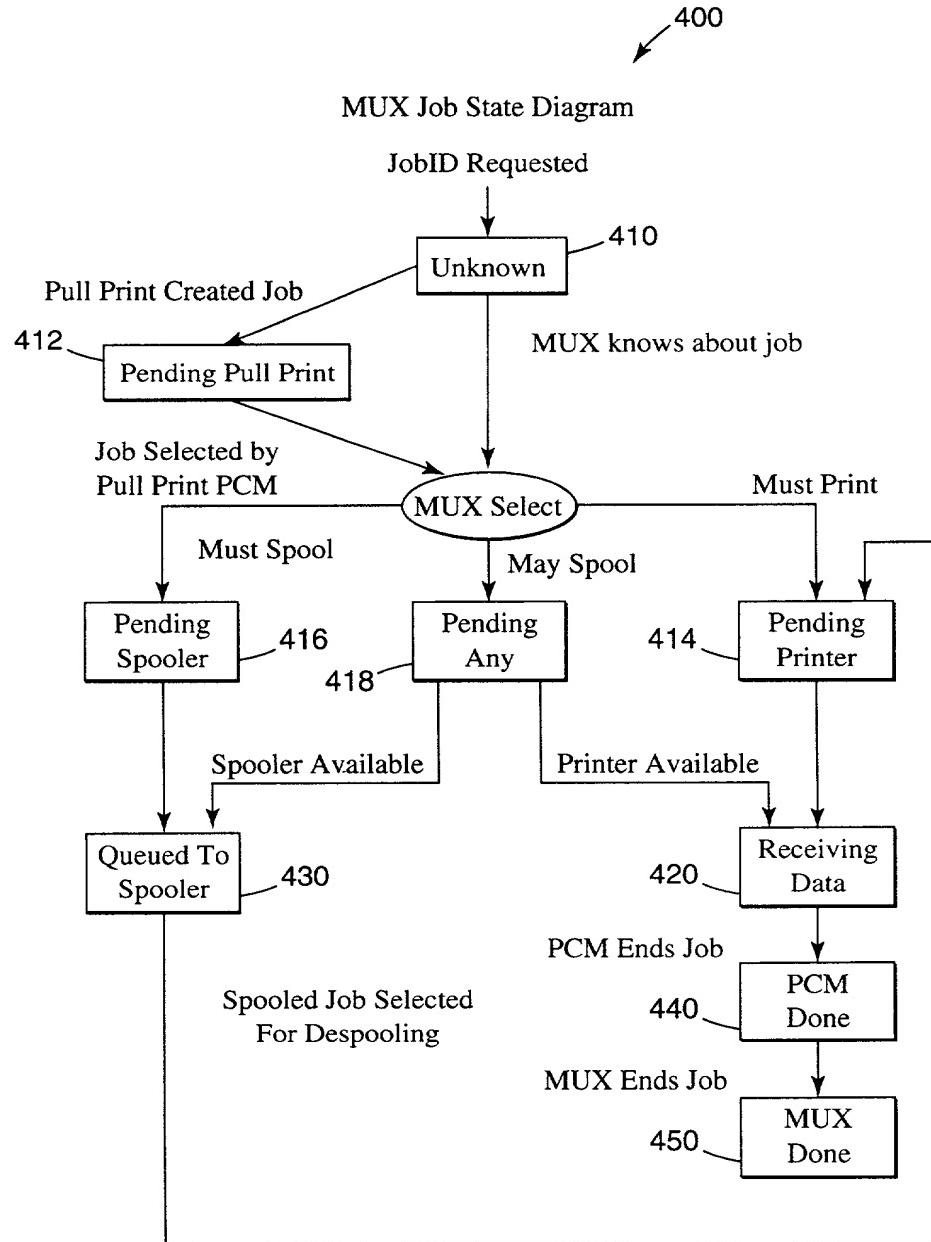
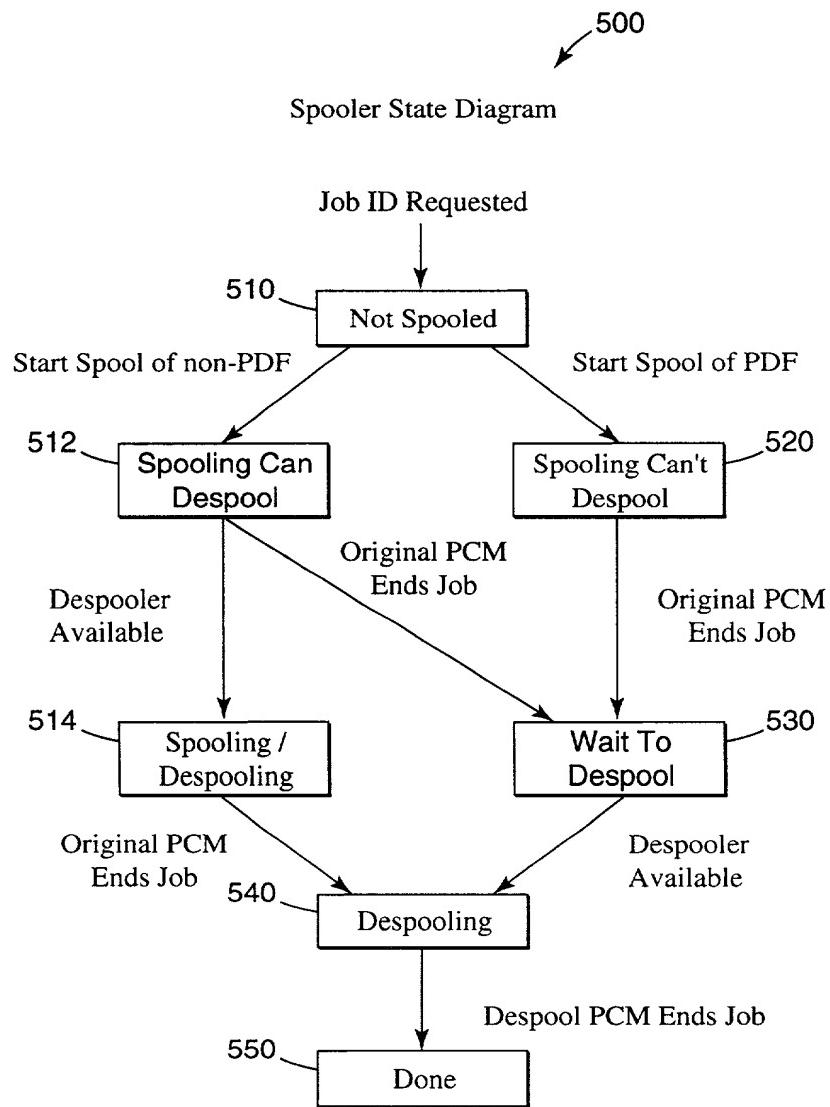


Fig. 2

Attribute	314	312	312	300
Job ID		Description	Initial Value	322
PCM ID		Job ID	JobID —	
Personality		ID of the PCM through which the job was received	Null	
PCM Priority		Personality of the PCM through which the job was received	Null	
MUX receive byte count		Priority of the PCM through which the job was received	Null	
URL of the job		Number of bytes received by the MUX through calls to the apsPDIData routine by a primary source PCM. This includes all PCMs except the despooler (it is not a primary source PCM)	0	
Output request attribute for the job		URL of the job (pull print only)	Null	
Output assignment attribute		Output requested by PCM for the job(Printer, Spooler, Either)	PRINTER	
File format indicator (PDF)		Output assignment attribute for the job (Printer, Spooler, Wait, Rejected)	Null	
MUX Job State		File format indicator (PDF)	NORMAL	
Spooler Job State		State of the job in the MUX	Unknown	
Interpreter Job State		State of the job in the spooler	NotSpooled	
Engine Job State		State of the job in the interpreter	WaitingFor Job	
PMDD bytes read		State of the job in the engine	WaitingFor Job	
MUX printer output status		This is the number of bytes read by the interpreter through calls to the PMDD Read routine.	0	
MUX Spooling status		Status of output to printer (not started, in progress, completed)	NotStarted	
Timestamp		Status of job being spooled (not started, in progress, completed)	NotStarted	
		Timestamp (printer up time ) of last attribute update	Uptime	

Fig. 3

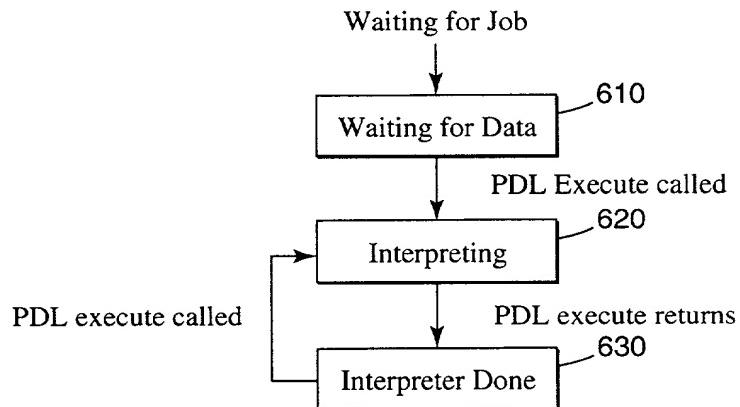
*Fig. 4*



*Fig. 5*

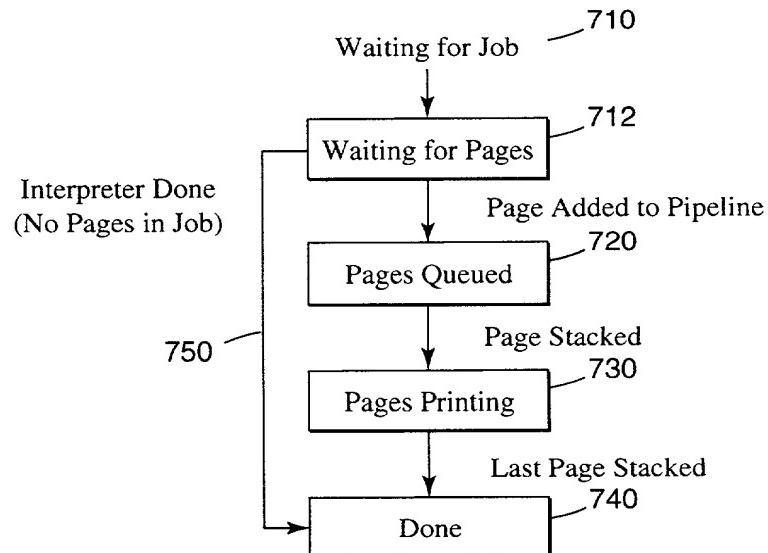
600

Interpreter Job State Diagram

*Fig. 6*

700

Engine Job State Diagram

*Fig. 7*

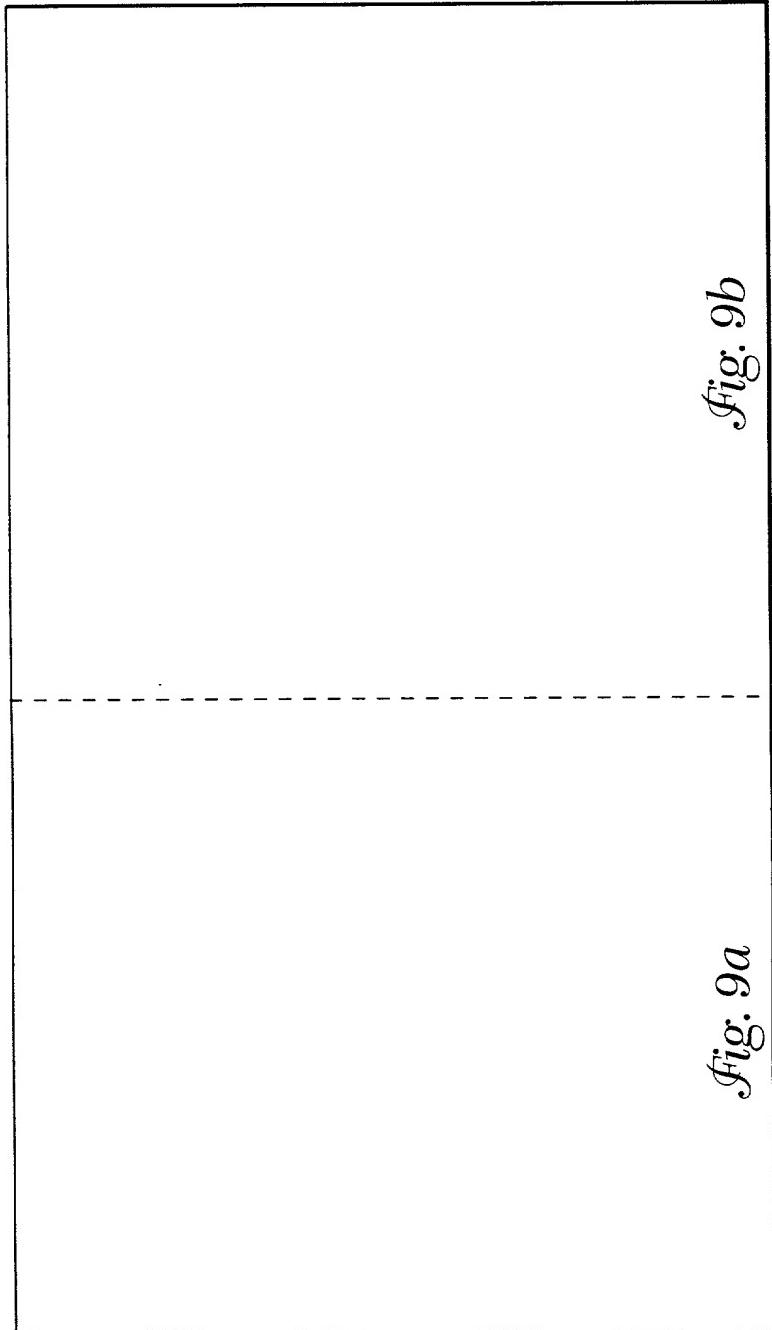
Process	From State	To State	Changed by
MUX	Unknown	Pending Printer	MUX OS Thread
	Unknown	Pending Any	MUX OS Thread
	Unknown	Pending Spooler	MUX OS Thread
	Unknown	Pending Pull Print	MUX OS Thread
	Pending Printer	Receiving Data	MUX OS Thread
	Pending Any	Receiving Data	MUX OS Thread
	Pending Spooler	Queued to Spool	MUX OS Thread
	Pending Any	Queued to Spool	MUX OS Thread
	Queued to Spool	Pending Printer	MUX OS Thread
	Receiving Data	Done	MUX apsPDIEnd
Spooler	Not Spooled	Spooling Can Despool	sp-open
	Spooling Can Despool	Spooling / Despooling	sp-eoj
	Spooling Can Despool	Waiting to Despool	sp-eoj
	Spooling / Despooling	Despooling	Despool PCM
	Not Spooled	Spooling Can't Despool	sp-open
	Spooling Can't Despool	Waiting to Despool	sp-eoj
	Waiting to Despool	Despooling	Despool PCM
	Despooling	Done	Despool PCM
Interpreter	any	any	event announce callback
Engine	any	any	event announce callback

Fig. 8

*Fig. 9*

*Fig. 9b*

*Fig. 9a*



The diagram shows a table with four columns. Above the first column is the label '910'. Above the second column is the label '912'. Above the fourth column is the label '914'. An arrow points from the label '900' to the top right corner of the table.

Attribute ID	Type	Rel.	RO/ RW	IPP	SNMP
JM-ATTR-JOB-ID	Iht	1	RO		
JM-ATTR-PCM-ID	Int (Enum)	1	RW		
JM-ATTR-PCM-PERSONALITY	Int (Enum)	1	RW		
JM-ATTR-PCM-PRIORITY	Int	1	RW		
JM-ATTR-SPOOLED-BYTES	Int	1	RW		
JM-ATTR-URL	String	1	RW		
JM-ATTR-OUTPUT-REQUEST	Int (Enum)	1	RW		
JM-ATTR-FILE-FORMAT	Int (Enum)	1	RW		
JM-ATTR-MUX-STATE	Int (Enum)	1	RW		
JM-ATTR-SPOOL-STATE	Int (Enum)	1	RW		
JM-ATTR-INTERPRETER-STATE	Int (Enum)	1	RO		
JM-ATTR-ENGINE-STATE	Int (Enum)	1	RO		
JM-ATTR-JOB-STATE	Int (bitfields or array of int's?)	1	RO	Yes	Yes
JM-ATTR-PAGES-SUBMITTED	Int	1	RO		
JM-ATTR-TOTAL-PAGES IN JOB	Int	1	RO		
JM-ATTR-TOTAL PAGES STACKED	Lnt	1	RO		
JM-ATTR-RECEIVED-BYTES	Int	1	RW		
JM-ATTR-BYTES-PROCESSED	Lnt	1	RW		
JM-ATTR-LAST-MODIFIED	Int	1	RO		
JM-ATTR-CANCEL-INITIATOR	Inl (Enun)	1	RW	Yes	Yes
JM-ATTR-CANCEL	Lnt	1	RW		
JM-ATTR-OPEN COUNT	Iht	1	RO		
JM-ATTR-COPY-SET	Int	1	RO		
JM-ATTR-COPY-COUNT	Int	1	RO		
JM-ATTR-COLLATE	Int	1	RW		
JM-ATTR-DUPLEX	Int	1	RW		

*Fig. 9a*

	900
	920
Notes	
Set by JM.	
Set by MUX.	
Set by WPP.	
Set by MUX. Enum will contain PRINTER,SPOOLER, WAIT, REJECTED. Others will be added if needed.	
Set by MUX. Enum will contain at least UNKNOWN and PDF. Others will be added as needed.	
Set by MUX. Enum will be created to list the possible states.	
Set by SPOOLER. Enum will be created to list the possible states.	
Set by JM. Enum will be created to list the possible states.	
Set by JM. Enum will be created to list the possible states.	
Done by JM. Convert from JM-ATTR * STATE attributes	
Set by JM. This is the number of pages submitted into the pipeline by the interpreter (incremented once for each page, regardless of the copy count).	
Set by JM. This is the total number of pages, including all copies of each page, which have been submitted into the pipeline.	
Set by JM. This is the total number of pages that have been stacked by the engine (incremented for each copy of a page).	
Set by MUX. The MUX should ensure that this is not double when we are spooling (ie, the bytes should only be counted when they are received from the host, not from the spooler.)	
Set by PMDD	
Set by JM. This is a timestamp (or count) used to tell if data modified since last checked this value.	
Set by requester of cancel. This is who requested the cancel (operator, user, device)	
Set by JM (or IPDS?). 0 if not cancelling, 1 if cancel initiated	
Set by JM. Not read by others. Used to know how many people have this handle open (have not called destroy yet).	
Set by JM. This is the set for the last page stacked if doing collation.	
Set by JM. This is the copy count for the last page stacked if doing collation.	
True if collated job, false otherwise.	
True if job is duplex, false otherwise.	

*Fig. 9b*